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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/802,455
Filing Date: March 17, 2004
Appellant(s): HEISLER ET AL.

William G. Conger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 23 April 2007 and amended 26 July 2007
appealing from the Office action mailed 24 October 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct. The summary addresses the sole independent claim.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,854,343

Schuster et al.

12-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathur et al. (US 2003/0229175) in view of Schuster et al. (US 5,854,343). Regarding claim 1, Mathur ('175) discloses a process for preparing organopolysiloxane compositions (see [0016]-[0018]) having a viscosity measured at 25 degrees C of at least 500 Pa's (see [0015]), comprising mixing and kneading organopolysiloxanes and fillers (see [0023]) in a first process stage in a kneading cascade having at least two kneading chamber which are arranged in series (see [0023]), each containing two kneading tools having parallel axes and capable of being driven in co-rotating directions (see [0023]) at least the first kneading chamber having a feed opening and the last chamber having a discharge opening, to provide a raw orgnopolysiloxane mixture, and, in a second stage process stage, kneading and degassing the raw mixture in a reciprocating kneader (114) (see [0008], [0009] and [0036] and claim 2 of Mathur '175). The first stage kneading is not exactly as claimed in that the material is not expressly disclosed to pass "transverse" to the axis of the kneading tools. Schuster ('343) discloses a kneading cascade having at least two kneading chambers (2) which are arranged in series adjacent one another, each containing two kneading tools (3) having parallel axes and are capable of being driven in co-rotating or counter rotating directions, said chambers being connected to one another by means of openings (5) through which material passes in a direction transverse to the axes (4) of the kneading tools, at least the first

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kneading chambers having a feed opening (6) and the last chamber having a discharge opening (7), to provide an organopolysiloxane mixture (see drawing and abstract). It would have been obvious to one of ordinary skill in the art to have substituted the kneading cascade of Schuster ('343) for the first stage of Mathur ('175), because Schuster ('343) explains in col. 5, lines 32-37 that the kneading machine provide the benefit of controlling intensity and residence time. Regarding claim 2, the kneading cascade taught by Schuster ('343) comprises from 3 to 10 chambers (see drawing). Regarding claims 3 and 4, the kneading tools taught by Schuster ('343) comprise kneading blades, rollers or polygonal plates (see col. 5, lines 66-67). Regarding claim 5-7, temperature of the reciprocating kneader is regulated (see [0036]). Regarding claim 8, the filler content is from 5 to 80% (see [0026]). Regarding claim 9, silicas having specific surface area determined by BET method of at least 50 m²/g are used as fillers (see [0026]). Regarding claims 10 and 11, polydimethylsiloxanes in accordance with these claims are disclosed or suggested in [0016]-[0018] of Mathur ('175). Regarding claim 12, Schuster ('343) teaches adding organopolysiloxanes having a viscosity measured at 25 degrees C from 10 to 200 mPa's (see col. 6, lines 54-67). Regarding claim 13, both references further teach prehydrophobicized filler. See paragraph [0004] of Mathur '175 "a treating agent is added to reduce silanol functional groups", [0019] of Mathur '175, [0036] of Mathur '175 "pretreated filler", and col. 4, line 17 of Schuster '343 "The fillers (2) are prehydrophobicized". Regarding claim 14, while it should be noted that Mathur ('175) involves some obvious typographic errors (as can be verified by looking at the parent application thereof) such as "2600C" instead of -260°C - -, Mathur

('175) [0027]-[0030] and Schuster ('343) col. 6, line 64 each disclose temperature being less than 280°C. Regarding claim 15, Mathur ('175) further discloses adding organopolysiloxane, untreated filler and hydrophobicizing agent to (see [0024]). Regarding claim 16, Mathur ('175) further discloses adding organopolysiloxane, untreated filler and structure improver (see [0024]). Regarding claim 17, as seen in Fig. 1 of Schuster ('343), the absence of an additive inlet in the last chamber, would have suggested that no structure improver is added to the last chamber.

(10) Response to Argument

With regard to appellant's argument on pages 3-5 of the brief, Mathur ('175) teaches the combination of first stage of twin screw extruder(s) (112) and a second stage of a reciprocating kneader (114) (see [0008], [0009], [0023], [0036]). Schuster ('343) explains that kneading machine (1) provides the benefits of longer residence time and more intense mixing compared to twin screw extruders (see example 1 vs. comparative example 2, i.e. col. 6, line 50 to col. 7 line 49 and col. 1, lines 28-38). Thusly, Schuster ('343) provides strong evidence that it would have been obvious to one of ordinary skill in the art to have substituted the kneading machine (1) of Schuster ('343) for the first stage twin screw extruder(s) of Mathur ('175) to achieve the benefits of longer residence time and more intense mixing.

While it is true that Schuster ('343) teaches that kneading machine (1) is an improvement over a reciprocating compounder as well as an improvement over a twin-screw extruder (col. 1, lines 28-38), the proposed substitution of kneading machine (1) Schuster ('343) of for the twin-screw extruder(s) of Mathur ('175) is in exact accordance

with the example 1 and comparative example 2 of Schuster ('343), where kneading machine (1) is compared to a twin-screw extruder.

Page 5 of the brief states "the CAFC has indicated that the requirement for showing the teaching or motivation to combine references is 'rigorous'". "Helpful insights, however, need not become rigid and mandatory formulas. If it is so applied, the TSM test is incompatible with this Court's precedents. The diversity of inventive pursuits and of modern technology counsels against confining the obviousness analysis by a formalistic conception of the words teaching, suggestion, and motivation..." *KSR International Co. v. Teleflex Inc.* 82 USPQ2d 1385, 1389 (U.S. Supreme Court 2007). Nonetheless, a "motivation" to combine the teachings of the references is to achieve the benefits of longer residence time and more intense mixing compared to twin screw extruders (see example 1 vs. comparative example 2, i.e. col. 6, line 50 to col. 7 line 49 and col. 1, lines 28-38 of Schuster '343).

Contrary to appellant's arguments on pages 6 and 7 of the brief, both references teach prehydrophobicized filler. See paragraph [0004] of Mathur '175 "a treating agent is added to reduce silanol functional groups", [0019] of Mathur '175, [0036] of Mathur '175 "pretreated filler", and col. 4, line 17 of Schuster '343 "The fillers (2) are prehydrophobicized".

Claim 13 (page 8 of the brief)

Both references teach prehydrophobicized filler. See paragraph [0004] of Mathur '175 "a treating agent is added to reduce silanol functional groups", [0019] of Mathur

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'175, [0036] of Mathur '175 "pretreated filler", and col. 4, line 17 of Schuster '343 "The fillers (2) are prehydrophobicized".

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

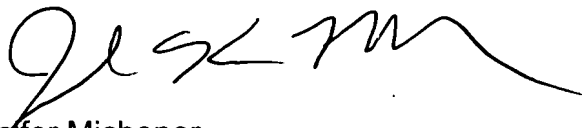


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